

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/Ala Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-012084**Date Inspected:** 13-Jan-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower Components**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance Inspector George Goulet was present during the times noted above for observations relative to the work being performed.

Bay 10

This QA Inspector randomly observed the following work in progress in Bay 10:

SMAW welding of fillet weld attaching the inside of temporary bottom end plate assembly to south tower, lift 5, skin A (90mm thickness), without sufficient base material preheat. Welder was identified as 053469. ZPMC QC was identified as CWI Du Zhi Qun (QC1). The welding variables recorded by QC1 appear to not comply with WPS-B-P-2112. This QA Inspector observed multiple 110 degree Celsius Tempilstik temperature indicator marks applied by this QA Inspector to the adjacent base material within approximately 20mm from the point of welding did not melt. Welding Procedure Specification WPS-B-T-2112, designated as the applicable WPS by ZPMC QC, requires a minimum preheat temperature of 180° Celsius. AWS D1.5 (2002), Section 4.2.7 requires the base metal material to be at or above the specified minimum temperature for a distance not less than 75mm in all directions from the point of welding. Also present at this location and appearing to be monitoring the welding operation was ABF Representative Yang Ye Heng. This QA Inspector generated an incident report concerning the preheat temperature issue. See the photos below for additional information.

Bay 11

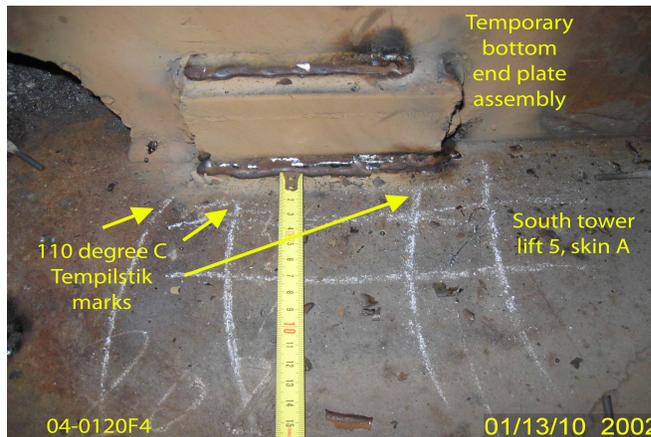
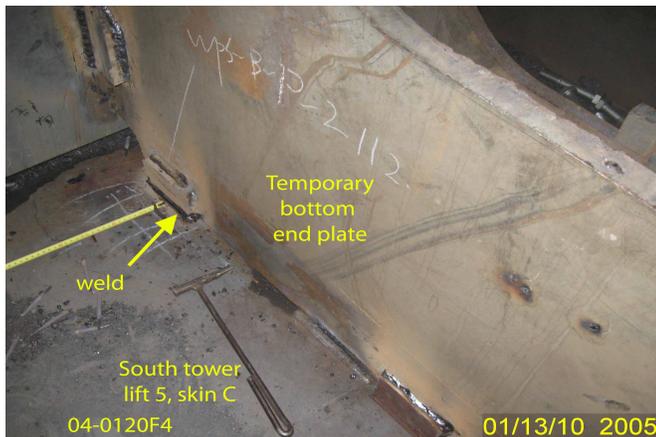
This QA Inspector randomly observed the following work in progress in Bay 11:

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No welding work was observed being performed in Bay 11.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



Summary of Conversations:

As noted above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Skyler Guest, 150-0042-2360, who represents the Office of Structural Materials for your project.

Inspected By: Goulet, George

Quality Assurance Inspector

Reviewed By: Dawson, Paul

QA Reviewer
